

P. ENT COOPERATION TREA

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C.20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 21 July 2000 (21.07.00)	
International application No. PCT/US99/24859	Applicant's or agent's file reference P00240W01
International filing date (day/month/year) 22 October 1999 (22.10.99)	Priority date (day/month/year) 22 October 1998 (22.10.98)
Applicant RUSH, Gary, W. et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

22 May 2000 (22.05.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

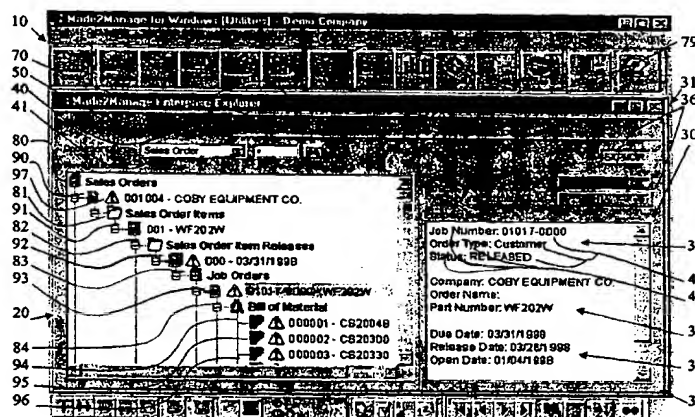
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Pascal Piriou Telephone No.: (41-22) 338.83.38
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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : G06F 3/14		A1	(11) International Publication Number: WO 00/23874
			(43) International Publication Date: 27 April 2000 (27.04.00)
(21) International Application Number: PCT/US99/24859 (22) International Filing Date: 22 October 1999 (22.10.99) (30) Priority Data: 60/105,287 22 October 1998 (22.10.98) US 09/237,631 26 January 1999 (26.01.99) US (71) Applicant (for all designated States except US): MADE2MANAGE SYSTEMS, INC. [US/US]; Suite 200, 9002 Purdue Road, Indianapolis, IN 46268 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): RUSH, Gary, W. [US/US]; 2703 Sleepy Hollow Drive, Lafayette, IN 47904 (US). KIEFUS, Herman, J. [US/US]; 338 South 26th Street, Lafayette, IN 47904 (US). (74) Agents: WOOD, James, D. et al.; Ice Miller Donadio & Ryan, One American Square, Box 82001, Indianapolis, IN 46282 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report. With amended claims and statement.	

(54) Title: NAVIGATIONAL INTERFACE FOR ERP SYSTEM



(57) Abstract

The present invention comprises a software system having a user-friendly navigational interface utilizing an hierarchical display (20) of business documents based upon a dominant-subordinate relationship between the documents. In one embodiment, the documents are related through the use of keys, which define a relationship between the dominant (81) and the subordinate documents (91). In conjunction with the selection of a specific document, the invention displays information related to that document which can be custom defined by the user. In one embodiment, each user can define a unique set of data to be displayed. The invention further provides a means by which the underlying data can be easily edited from the hierarchical display (20). The present invention also allows the creation of expressions (230, 231) that will alert the user to predetermined conditions. The alert is displayed in conjunction with the hierarchical display (20) of a document, but the expression (230, 231) may be defined by data not normally contained within the document. Each user can define a unique set of alerts for various documents. The present invention further comprises a visual rendering of predefined expressions describing the progress of work related to a document and each user can also define a unique set of progress of expressions (250) for various documents based on conditions of particular interest to the user.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/24859

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G06F 3/14

US CL : 345/356,357 ; 705/30,34 ; 707/514

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 345/356,357 ; 705/30,32,33,34 ; 707/514,515

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST 1.2 DIALOG LINK

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 5,923,328 [GRIESMER] 13 July 1999. Abstract, Fig.5	1-92
Y	US 5,801,702 [DOLAN et al.] 01 September 1998 Abstract, Fig.2	1-92
A	The Windows Sources catalog (Buyer Guide), Gale Group Computing, September 1993	1-92
A	Managing Your Money for Windows, User's Guide, MECA Software, Inc. 1994. pages 1-32, 89-92, 112-113,122-123,222,231,237-238,243-251	1-92

☐

Further documents are listed in the continuation of Box C.

☐

See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*&* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

29 DECEMBER 1999

Date of mailing of the international search report

13 JAN 2000

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 308-6606

Authorized officer

RAYMOND J. BRYAN

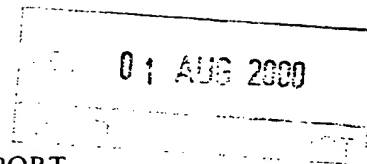
Telephone No. (703) 305-9789

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference P00240-W-1(12178.0015)	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/24859	International filing date (<i>day/month/year</i>) 22 OCTOBER 1999	Priority date (<i>day/month/year</i>) 22 OCTOBER 1998
International Patent Classification (IPC) or national classification and IPC IPC(7): G06F 3/14 and US Cl.: 345/356,357 ; 705/30,34 ; 707/514		
Applicant MADE2MANAGE SYSTEM, INC		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:
- I ☒ Basis of the report
 - II ☐ Priority
 - III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 22 MAY 2000	Date of completion of this report 10 JULY 2000
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer RAYMOND J. BAKER <i>James R. Matthews</i> Telephone No. (703) 305-9789

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/24859

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)	Claims <u>1-93</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-93</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-93</u>	YES
	Claims <u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

1. Claims 1-93 meet the criteria set out in PCT Article 33(2)-(3), because although Dolan et al.(U.S.A. 5,801,702) discloses the tool for navigation in the hierachical graph which representation of links that being dependent upon the order of an item is selected, and Griesmer (U.S.A. 5,923,328) teaches in detail of a hierachical sub-tree bar control for utilizing screen spaces effectively. However, Griesmer does not qualify as prior art under PCT Rule 64.1, and furthermore, the prior art does not teach or fairly suggest the navigation feature such as relating business documents according to a previously established progression, defining the relationships between different types of business documents as they are encountered in a typical business environment and defining allowed navigation paths between the plurality of business documents (see claim 93).

2. Claims 1-93 have industrial applicability under PCT Article 33(4) because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----
NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/24859

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

I. BASIS OF REPORT:

This report has been drawn on the basis of the description,
page(s) 1-52, as originally filed.
page(s) NONE, filed with the demand.
and additional amendments:
NONE

This report has been drawn on the basis of the claims,
page(s) 53-82, as originally filed.
page(s) NONE, as amended under Article 19.
page(s) 83, filed with the demand.
and additional amendments:
NONE

This report has been drawn on the basis of the drawings,
page(s) 1-14, as originally filed.
page(s) NONE, filed with the demand.
and additional amendments:
NONE

This report has been drawn on the basis of the sequence listing part of the description:
page(s) NONE, as originally filed.
pages(s) NONE, filed with the demand.
and additional amendments:
NONE

5. (Some) amendments are considered to go beyond the disclosure as filed:
NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/24859

I. Basis of the report1. With regard to the **elements** of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ (See Attached) _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

- ☒ the claims:
pages _____ (See Attached) _____, as originally filed
pages _____, as amended (together with any statement) under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____

- ☒ the drawings:
pages _____ (See Attached) _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

- ☒ the sequence listing part of the description:
pages _____ (See Attached) _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages _____ NONE _____
- ☒ the claims, Nos. _____ NONE _____
- ☒ the drawings, sheets/fig. _____ NONE _____

5. ☒ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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Internet: kary.galloway@unisys.com

P.D.	15-12-1999
P.	1-4
(4)	

Unisys Commits to Global Interactive Video Services Market with Video on Demand Solution

Blue Bell, PA, December 15, 1999 – Unisys Corporation today announced its Unisys e-@ction Interactive Television Services solutions, advanced electronic business solutions enabling cable operators and telecommunication companies to realize new sources of revenue capitalizing on the emerging interactive television market.

Video on demand, the first in a series of interactive television applications Unisys plans to make available, integrates a number of technological advances into a single high performance, low cost solution. Unisys video on demand allows subscribers to view movies with video player capabilities at any time, around the clock. The Unisys approach allows a high concurrency per video, enabling the system to scale to meet growing demand. The technological advantage of the Unisys solution is augmented by large scale server computers running Microsoft Windows NT and engineered for extremely high I/O bandpass that can send up to 7,200 concurrent video streams per server in a system that is designed to accommodate multiple servers with predictable competitive costs per subscriber.

"We believe there is an untapped market for interactive video services developing," said Brian Hadfield, who heads Business Development and Communications for Unisys Systems & Technology. "We are entering this market with a video on demand component that we believe is unparalleled in price, performance and scalability. As cable operators implement this solution wide-scale, and look to new revenue sources from interactive video services, Unisys is prepared to offer a range of complementary interactive services that the operators can deliver to their subscribers' homes."

How Unisys video on demand works

The Unisys system is comprised of the multimedia application server, based on Unisys e-@ction Enterprise Servers, and the video servers. The multimedia application server provides the centralized management and control of the VOD system, managing all the subscriber and content

databases and providing interfaces to billing systems used in the industry. It also serves as the central processing point for all set top remote control commands and directs the video servers to stream content to set top boxes.

- The subscriber uses a VCR-like remote control to select a film from a menu on the television screen. The set-top box decodes the selection and sends a message to the network, which routes it to the multimedia application server.
- The multimedia application server verifies the subscriber's authorization to receive the video, logs the transaction against the subscriber's account for billing, and locates the video on one of the video servers.
- When the subscriber is authorized to receive the video, the multimedia application server instructs the video server to stream the video to the subscriber's set-top box. If the video is not currently loaded on a video server, the multimedia application server retrieves it from storage and loads it onto an available video server for delivery.

Unisys has worked closely with a number of partners in designing an open system that will interface with a variety of interactive television applications in the future. Unisys has partnered with Prasara Technologies in developing an interface for add-on services, which include Prasara's television banking, food ordering, community information and newly added e-retailing applications. In addition, Prasara has developed business management tools that record, track, and initiate billing procedures for purchases from the backend of the system.

The Unisys video on demand solution can interface with multiple set-top boxes and their associated software (navigators, electronic programming guides, etc.) Unisys has been working with General Instrument Corporation, Scientific Atlanta and Bosch in creating a system that fully integrates with a number of platforms.

"We are pleased to work with Unisys on integrating the Unisys video on demand service and enabling it on GI's industry leading interactive digital platform," said Kevin Keefe, director of product marketing for GI's Digital Network Systems business unit. "We hope to continue working closely with Unisys as they develop and deploy their interactive, on-demand service for the digital cable market."

"We are pleased that our work with Unisys will soon expand cable operators' ability to realize new revenue per household by offering interactive television solutions while accelerating equipment return on investment and protecting them from satellite competitors," said Kevin O'Brien, Business Development Manager, Scientific Atlanta. "Scientific Atlanta's state of the art Explorer platform and network technology provides the experience necessary to design,

deploy, and operate digital interactive cable television systems."

"The Unisys products, combined with the Bosch access network products, enhance the commercial viability of VOD services as part of a full-service capability we offer to our international customers," said Walt Davis, product manager for iFLX platforms at Bosch. "The scalability of the Unisys products is key to deployment."

System Architecture

Unisys video on demand is defined as a variable number of video servers managed by a multimedia application server. The video servers stream data to the subscriber's television top receiver. Each video server can be expanded up to 7,200 streams at 3 mbit/sec. Adding more video servers accommodates further expansion. Configurations with hundreds of thousands of streams can be managed with ease. As new video servers are added, the system scales linearly in performance. The multimedia application server can be scaled from two processors to eight processors and, on a second dimension, up to eight operating systems. The multimedia application server's capacity to manage video servers is virtually unlimited.

Accounting Features

Unisys video on demand provides browser-style administrative controls for billing and access to films. A database of subscriber profiles is maintained to determine which viewers are authorized to access which films. The system records the initiation of a video stream in the system log for use in billing and the format of the billing records can match whatever interface standards the service provider specifies. For providers who want to post usage of particular streams electronically, the system can gather the usage data for transmission to a centralized asset tracking authority.

Unisys e-@ction Interactive Television Services solutions will be demonstrated at the Unisys booth at the Western Cable Show in Los Angeles, December 15-17, 1999. Both the video on demand service and the interface including add-on services (food ordering, home banking, community information) with Prasara will be featured.

About Unisys

Unisys is an electronic business solutions company whose 36,000 employees help customers in 100 countries apply information technology to seize opportunities and overcome

challenges of the Internet economy. Unisys people integrate and deliver the solutions, services, platforms and network infrastructure required by business and government to transform their organizations for success in this new era. The company offers a rich portfolio of Unisys e-@ction Solutions for electronic business based on its expertise in vertical industry solutions, network services, outsourcing, systems integration and multivendor support, coupled with enterprise-class server and related technologies. The primary vertical markets Unisys serves worldwide include financial services, transportation, communications, publishing and commercial sectors, as well as the public sector, including federal government customers. Unisys is headquartered in Blue Bell, Pennsylvania, in the Greater Philadelphia area. For more information on the company, access the Unisys home page on the World Wide Web at www.unisys.com. Investor information can be found at www.unisys.com/investor.

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